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Poultry Science and Fur-Bearing Animals

STA/STA

May 1989

Volume 5, No. 3

Introduction

There are a number of statistical reports enclosed with this newsletter. Due to spending 20% of my time as a team member for the Building Human Capital National Initiative, and other constraints, the frequency of the newsletter may decrease. In which case, the statistical information will be sent monthly or as it comes into this office. This issue contains opportunities you may wish to pass along to graduate students, as well as other information you may find useful.

Meetings

Announcements for meetings often are too late for this newsletter, or the newsletter is delayed, so the information is not timely. Therefore, it may be advantageous for you to ask to be placed on the various mailing lists in order to receive announcements of upcoming events.

Some of these meetings are:

- 1) Poultry Processing Plant Management, as well as many other educational programs for the poultry industries, Southeastern Poultry and Egg Association, 1456 Church Street, Decatur, Georgia 30030; (404) 377-6465;
- 2) Multi-State Poultry Feeding and Nutrition Conference, and Degussa Technical Symposium; there are also several quality regional programs coordinated by Extension personnel in the Midwestern States, contact any of the personnel in Michigan, Ohio, Purdue, Illinois, or Kentucky;
- 3) Jim Rock at the University of Connecticut coordinates several workshops each year;
- 4) The Extension Poultry Science Department at the University of Georgia has workshops for the Egg, Broiler, and Hatchery segments of the industry;
- 5) Several States have a meeting for gamebird producers, check Mississippi, Pennsylvania, the North American Gamebird Association, and the North Central regional program;
- 6) Pennsylvania, Ohio, and other States have a rabbit program each year;

Meetings
(Continued)

- 7) California, Texas, and Oregon have several management programs;
- 8) The Midwest Poultry Federation (612) 646-4553, the Delmarva Poultry Industry (302) 856-9037, and the Pacific Egg and Poultry Association (209) 524-9666, have annual trade shows and/or educational programs;

There are States whose programs I have not mentioned, but these are only examples of the high quality Extension and industry programs held throughout the United States. Please give me plenty of lead time if you want me to add your program to the newsletter.

1) Anitox Service Schools

Anitox customer services has designed "mold schools" lasting one-half, one, or two full days. There is no charge for this service which is available to anyone in the participating company, or to other interested parties. For more information, contact:

Kurt Richardson
P.O. Box 1929
Buford, GA 30518
800/241-8357; or in Georgia at 404/945-6741

2) Machine Vision: A Hands-On Workshop and Exhibition

The course will be held June 8 and 9 at the Pierremont Plaza Hotel in Atlanta, Georgia (404/881-6000). Workshop topics include: background information; what is machine vision and how it works; lighting and optics; and the economic justification of machine vision. The workshop requires no prior experience with machine vision technology. For more information call (800) 325-5007, or write:

Wayne Daley
Education Extension-R
Georgia Institute of Technology
Atlanta, GA 30332-0385
(404) 894-3412.

3) 1989 Microbiological Workshop for the Poultry Industry

The workshop is scheduled for May 31 at the Georgia Center for Continuing Education, in Athens, GA. The program will cover the origin of bacteria during production, how to use microbiological data, and discussions on methodologies to define and correct problems. For more information, contact Dan Fletcher at (404) 542-1380.

4) Changes to the Clean Water Act--A Training Symposium for Poultry Specialists and the Poultry Industry

This program will take place on September 7 and 8 in the Aerospace Building in Washington, DC (across the street from the L' Enfant Plaza Metro stop). The program is co-chaired by

Meetings
(Continued)

Bill Merka, Extension Poultry Science Department, University of Georgia, Lee Bridgeman, Environmental Protection Agency (EPA), and Richard Reynnells, USDA-Extension Service (ES). The program will cover point and non-point source pollution, economics of change, the role of the ES, the Soil Conservation Service (SCS) and the EPA in the Clean Water Act, and Extension's National Initiative on Water Quality. The program has several functions, which include: to instruct the specialists in current and proposed changes to the Act; to provide feedback to the various agencies regarding industry efforts; and it will hopefully stimulate cooperation between agencies, the universities, and the industries, via educational programs rather than regulations. The program is open to university, industry and government personnel. The enrollment is limited to the first 50 persons to sign up. There is no registration fee. Housing is available at the 4-H Center in Chevy Chase at a single room rate of \$38.00/night, or a double rate of \$28.00/night. Make your reservations by calling the 4-H Center, at (301) 961-2800. An agenda will be included in the next newsletter. Write or call me to make your reservation for the symposium.

5) Eastern Shell Egg Quality School

The school will be held June 4-7 at the Sheraton Atlanta Airport hotel in Atlanta, GA. The school will cover all aspects of quality, as well as the composition of the egg and several consumer concerns. For more information, contact:

Southern United Egg Producers
P.O. Box 957253
Duluth, GA 30136
(404) 476-2771

6) Poultry Production Systems

The University of Arkansas, Fayetteville, has developed a program to train Extension and other personnel working in the poultry system. The dates are May 15-June 23, 1989. The course is designed, organized, and taught by University of Arkansas faculty members. For more information, contact poultry faculty members at Arkansas, as listed in your directory, or:

Nancy Christman
Training Coordinator
University of Arkansas
Fayetteville, AR 72701
(501) 575-6857;

7) Annual Institute on Livestock in Development and International Small Livestock Production.

The dates for this meeting are August 6-11, 1989, which includes a program for rabbit production. For more information, contact:

Meetings
(Continued)

Steve Lukefahr, Coordinator
International Small Livestock Research Center
P.O. Box 264
Alabama A&M University
Huntsville, AL 35762
(205) 851-5445

- 8) 18th Midwest Poultry Federation Annual Convention
The 1990 convention will be held February 28 to March 2, at the Hyatt Hotel, in Minneapolis MN. For more information, contact:

John Hausladen
678 Transfer Road
St. Paul, MN 55114
(612) 646-4553

Material Available

- 1) U.S. Egg and Poultry Statistical Series, 1960-1987; Statistical Bulletin Number 775
This publication by Mark Weimer and Shauna Cromer of the Economic Research Service (ERS) has been included to all poultry project leaders and 1890 offices. If you need a copy, send a check for \$8.00 to:

ERS-NASS
P.O. Box 1608
Rockville, MD 20850
(800) 999-6779

or contact me, as I have a limited number of copies available for distribution.

- 2) Proceedings of the Third Regional Meeting, Practical Poultry Biosecurity--Coping with the Salmonella Issue...
The Mid- Atlantic Cooperative Extension Poultry Health and Management Unit has recently published the proceedings of this conference. To obtain a copy, contact Dan Palmer, as listed in your PSA Resource List.
- 3) Life on the Farm
This 40 page coloring book (Booklet FV-10-46) has been prepared by Dr. Glenwood Hill. The book attempts to educate young people regarding the source of their food and provides other basic information regarding foods. For more information, contact:

Glenwood Hill, Extension Program Leader
Agriculture and Natural Resources
Cooperative Extension Program
P.O. Box 4061
Fort Valley State College
Fort Valley, GA 31030
(912) 825-6269

Material Available
(Continued)

- 4) Agricultural Outlook, May 1989
This issue discusses Farmland Values, Fertilizer Uses, Rural Development, and Food Distribution through the year 2000. To obtain a copy, or to subscribe, write to:

ERS-NASS, as listed above.

You may also call for this report, or parts of it, via facsimile machine by calling (800) 999-6779. You may also order a free copy of REPORTS, the catalog that describes the latest in ERS research reports.

- 5) Poultry--more than a meal
Agri-Bio Corporation has underwritten the production of this colorful, easy to read 12 page booklet describing the past, present, and future of the poultry industry. For more information on how to obtain copies of this booklet, contact:

Richard M. O'Hanlon
Vice President for Marketing and Sales
Agri-Bio Corporation
P.O. Box 897
Gainesville, GA 30503
(404) 536-0111

- 6) GATT & AGRICULTURE
This booklet explains PSE's (producer subsidy equivalents) and CSE's (consumer subsidy equivalents), how they work, and how they can help the GATT negotiations. It also explains the GATT agreement and gives some background information on this program. For more information, contact:

ERS-NASS, as listed above.

There may be a \$5.50 charge per booklet.

- 7) National Research Council
The NRC has three publications that relate to the future of agricultural education. The first title is, Agriculture in Transition, a 14 page booklet that provides a brief overview of this topic, and is available from:

The Board on Agriculture
National Research Council
2101 Constitution Avenue, NW
Washington, DC 20418
(202) 334-2252

Material Available
(Continued)

Educating the Next Generation of Agricultural Scientists

This 82 page book discusses challenges to the industries, profiles scientists, and the future demand for scientists. This publication is available from:

The National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161
(703) 487-4600

The NTIS order number is PB88-213129, and is \$14.95 for paper and \$6.95 for microfiche.

Understanding Agriculture, New Directions for Education is 68 pages in length, and discusses agricultural literacy, vocational agriculture education, and provides recommendations. This publication may be ordered from:

The National Academy Press
2101 Constitution Avenue, NW
Washington, DC 20418

and may be available from the NRC.

8) 1989 Directory of American Agriculture

The cost of this directory is \$49.50. Send orders to the publishers:

Agricultural Resources and Communications, Inc.
1000 Connecticut Ave. NW
Suite 202
Washington, DC 20036
(202) 833-3380

9) Facing the Animal Rights Challenge

The Animal Health Institute has produced this approximately 10 minute slide show that reviews the history of the animal rights movement, some of the current activist groups, and your options if your company is picketed. The cost is \$45.00. You may be able to review the material by contacting:

Steve Kimbal
Vice President Public Information, AHI
P.O. Box 1417-D50
119 Oronoco Street
Alexandria, VA 22313
(703) 684-0011

Material Available
(Continued)

- 10) Our Side of the Fence
This is an excellent 9 minute video (VHS) that was funded by the Beef Promotion and Research Board. They show how others perceive the cattle and animal industries on animal care issues and suggest steps to be taken to tell our side of the story. For more information, contact:

Dale Heikes
National Cattleman's Association
5420 South Quebec Street
Englewood, CO 80155
(303) 694-0305
- 11) Agriculture, Of Course
This 9:30 minute video (VHS) on career opportunities in agriculture has been produced by Fort Valley State College and the University of Georgia. For more information, contact the Extension Communications Department at either of these institutions.
- 12) Water Quality Series of videotapes
The titles of the professional quality videos (VHS) are: Groundwater and Your Family's Health; Groundwater: The Unseen Resource; and, Agriculture and Groundwater Contamination: Exploring the Issues. The cost of \$5.00 to rent each tape should be sent along with your request to:

Institute of Water Quality Research
Michigan State University
334 Natural Resources Building
East Lansing, MI 48824-1222
(517) 353-3742
- 13) Western Poultry History
This 500 page book is available for \$25.00, plus \$3.00 for handling from:

Pacific Egg and Poultry Association
1620 N. Carpenter Road
Building A-4
Modesto, CA 95351-1153
(209) 524-9666
- 14) National Agricultural Library Quick Bibliography publications
These publications may be ordered by writing:

The National Agricultural Library
10301 Baltimore Boulevard
Beltsville, MD 20705
(301) 344-3755

Material Available
(Continued)

- A. 4-Hprk: Communication, A Professional Research and Knowledge Taxonomy for Youth Development, by Kathleen Hayes and Sandra Facinoli.
 - B. Animal Models of Disease 1979-August 1988, NAL-BIBL QB 89-07, 156 citations, by Janice Swanson.
 - C. Salmonellosis in Laboratory Animals, NAL-SRB 89-01, by Kevin Engler.
 - D. ALF (Agricultural Library Forum) The National Agricultural Library's Electronic Bulletin Board System Brief Guide.
- 15) Video on Quail Life Cycle
The Georgia Department of Natural Resources, in conjunction with Quail Unlimited and former President Jimmy Carter, have produced a 28-minute video, Prince of Game Birds: The Bobwhite Quail. It is available on loan free of charge by contacting:

Georgia Department of Natural Resources
Film and Video
205 Butler Street, SE
Suite 1258
Atlanta, GA 30334
- 16) Issues and Answers about Animal Waste Management
This leaflet is available from local SCS offices, or from their Washington, DC office.
- 17) Poultry Dead Bird Composting Shed
The blueprints and estimated costs of construction of the composting shed being tested in Maryland, Delaware, and New York are available from Dennis Murphy or Lew Carr (MD), as listed in your directory.
- 18) Continuing the Momentum: History, Growth, and Future Challenges
This just released report by the Joint Council on Food and Agricultural Sciences summarizes the history and future challenges of the Joint Council. To obtain a copy, call Mark Bailey, Acting Executive Secretary (202) 447-8662, or send the request via DIALCOM to AGS3309.
- 19) Animal Science Bulletin Board
Allan Rahn at Michigan State University has announced their newly developed bulletin board is available for use by specialists in the other universities. For more information, contact Allan, as listed in your directory.

Material Available
(Continued)

- 20) Biotechnology Video
The Office of Agricultural Biotechnology (OAB) has produced a videotape (VHS) which describes the background and opportunities in the area of biotechnology. To order a copy, contact:

Michael T. Olexa
Institute of Food and Agricultural Sciences
G-155E McCarty Hall
University of Florida
Gainesville, FL 32611

- 21) International Ag-Sieve
Included in this new publication by Rodale International is information on farmers in partnership with researchers, and reviews of new manuals on regenerative agriculture. Rodale has been cooperating with the ES in the area of low input sustainable agriculture. For more information on this publication, contact:

International Ag-Sieve
222 Main Street
Emmaus, PA 18098

Federal Register

- 1) Animal Welfare; Proposed Rules
The Animal and Plant Health Inspection Service (APHIS) has requested supplemental comments on the interrelationship between Part 1 of the Animal Welfare Act regulations and the proposal to amend Part 3 of the regulations. The deadline was May 15, 1989. Definition of terms start on page 10822, while the proposed rules are on page 10835. For further information, contact:

Dr. R. L. Crawford, Director
Animal Care Staff
REAC-APHIS-USDA
Room 268 Federal Building
6505 Belcrest Road
Hyattsville, MD 20782
(301) 436-7833.

Source: Federal Register, Vol. 54, No. 49, Wednesday, March 15, 1989, pages 10822-10954.

- 2) Importation of Meat and Animal Products
The APHIS has published a final rule, effective March 23, 1989, which amends the regulations which prohibit entry into the U.S. of certain animal products to language which will prohibit importation of these products. Other procedural changes are also included. For further information, contact:

Federal Register
(Continued)

Dr. Richard Bowen, Senior Staff Veterinarian
Import-Export Products Staff
USDA-APHIS-VS
Room 757 Federal Building
Hyattsville, MD 20782
(301) 436-7833

Source: Federal Register, Vol. 54, No. 33, Tuesday, February 21, 1989, pages 7391-7395.

- 3) Control of Added Substances and Labeling for Turkey Ham
The Food Safety and Inspection Service (FSIS) has proposed to amend the definition, product standard and labeling requirements for turkey ham products. They will now specify a minimum meat protein content on a fat free basis (PFF) in various turkey ham products. The deadline for comments was April 24, 1989. For more information, contact:

Ashland Clemons, Director
Standards and Labeling Division
Technical Services
FSIS-USDA
Washington, DC 20250
(202) 447-4293

Source: Federal Register, Vol. 54, No. 33, Tuesday, February 21, 1989, pages 7434-7444.

- 4) Net Weight Labeling
The FSIS proposed a rule to amend the regulations to provide uniform net weight labeling requirements including reasonable variations for label statements of net weight contents. The proposed change withdraws the 1980 proposed rule on Net Weight Labeling. The comment period closed May 5, 1989. For further information, contact:

Bill Dennis, Director
Processed Products Inspection Division
Technical Services
FSIS-USDA
Washington, DC 20250
(202) 447-3840

Source: Federal Register, Vol. 54, No. 42, Monday, March 6, 1989, pages 9370-9384.

Federal Register
(Continued)

5) Halofuginone and Lincomycin

In a final rule effective March 21, 1989, the Food and Drug Administration (FDA) amended the regulations to approve a new animal drug application (NADA) for the use of halofuginone hydrobromide in combination with lincomycin in Type C broiler feeds for the prevention of coccidiosis and for improved feed efficiency. For further information, contact:

Lonnie W. Luther
Center for Veterinary Medicine (HFV-128)
Food and Drug Administration
5600 Fishers Lane
Rockville, MD 20857
(301) 443-4317

Source: Federal Register, Vol. 54, No. 53, Monday, March 21, 1989, pages 11519-11520.

6) Salinomycin for Quail

The FDA is announcing the availability of target animal safety and effectiveness, tissue residue depletion, and environmental data to be used in support of a NADA or a supplemental NADA for the use of salinomycin in Type C quail feed. The data were compiled under Interregional Research Project No. 4 (IR-4 Project), a national agriculture program for obtaining clearances for use of agricultural products for minor or special uses. For further information, contact:

Dianne T. McRae
Center for Veterinary Medicine (HFV-135)
Food and Drug Administration
5600 Fishers Lane
Rockville, MD 20857
(301) 443-4913

Source: Federal Register, Vol. 54, No. 53, Tuesday, March 21, 1989, pages 11569-11570.

7) NADA for Tylosin

The FDA has approved a NADA for Wayne Feed Division of Continental Grain Co. providing for the manufacture of a 100-gram-per-pound tylosin Type A medicated article used to make Type C medicated feeds. The effective date was March 16, 1989. For further information, contact:

Benjamin A. Puyot
Center for Veterinary Medicine (HFV-130)
Food and Drug Administration
5600 Fishers Lane
Rockville, MD 20857
(301) 443-4913

Federal Register
(Continued)

Source: Federal Register, Vol. 54, No. 50, Thursday, March 16, 1989, pages 10979-10980.

8) Poultry Breakfast Strips

The FSIS has proposed to amend the poultry products inspection regulation to permit the preparation of partially cooked cured or smoked poultry breakfast strips which are intended to be further cooked by the consumer. Comments are due May 23. For further information, contact:

Mr. Ashland Clemons, as listed above.

Source: Federal Register, Vol. 54, No. 56, Friday, March, 24 1989, pages 12219-12220.

9) National Poultry Improvement Plan (NPIP)

The APHIS has served notice they intend to reestablish the General Conference Committee of the NPIP. Comments were due April 14. For more information, contact:

Dr. Irvin L. Peterson; Senior Staff Veterinarian
Swine, Poultry & Misc. Diseases Staff
APHIS-USDA
Room 771 Federal Building
6505 Belcrest Road
Hyattsville, MD 20782
(301) 436-5777

Source: Federal Register, Vol. 54, No. 60, Thursday, March 30, 1989, page 13088.

10) Increase in Agricultural Marketing Service (AMS) fees

The proposed rule will revise charges for voluntary egg products inspection; voluntary egg, poultry and rabbit grading; and laboratory services. The closing date for comments was April 20, 1989. For further information, contact:

Larry W. Robinson, Chief
Grading Branch, Poultry Division
AMS-USDA
Room 3944-South Building
P.O. Box 96456
Washington, DC 20250
(202) 447-3271

Source: Federal Register, Vol. 54, No. 53, Tuesday, March 21, 1989, pages 11541-11544.

Federal Register
(Continued)

- 11) NPIP to include a new U.S. Sanitation Monitored, Turkeys
The NPIP issued a proposal to expand the plan to include a new U.S. Sanitation Monitored, Turkeys program for reducing Salmonella levels in turkey flocks and products, and to increase the effectiveness of the Plan's monitoring and testing procedures. The closing date was April 7, 1989. For more information, contact:

Dr. I. L. Peterson, as listed above.

Source: Federal Register, Vol. 54, No. 44, Wednesday, March 8, 1989, page 9842.

- 12) Importation of Eggs Other than Hatching Eggs
The APHIS has announced an interim rule and a request for comments on their establishing restrictions on the importation of eggs (other than hatching eggs) from all countries where Salmonella enteritidis, phage-type 4 is considered to exist. Written comments will be considered if received by June 12, 1989. Refer to Docket 89-013 and send comments to:

Helene R. Wright, Chief
Regulatory Analysis and Development
PPD-AHPIS-USDA
Room 866 Federal Center Building
6505 Belcrest Road
Hyattsville, MD 20782

For further information, contact:

Richard Bowen, as listed above.

Source: Federal Register, Vol. 54, No. 70, Thursday, April 13, 1989, pages 14792-14796.

Personnel Changes

- 1) Connecticut -- Louis Ruggles has retired after many years of distinguished service to the poultry system. There are no plans to replace him.
- 2) South Dakota -- Phil Plumart will retire this summer after 28 years of service to SDSU. The Department of Animal and Range Science invites you to join them in honoring Phil at his retirement banquet, to be held June 16. For more information, contact: Carla Lovro, in Phil's department.

We wish Lou and Phil the best of luck in their retirement, and appreciate their contributions to the poultry system.

Reminder

The Poultry Science Association Resource List is being updated at this time. If you have changes, please send them to me by June 1.

American Poultry
Historical Society

The American Poultry Historical Society will hold the initiation ceremony for inductees into the Hall of Fame on June 2, 1989 at the National Agricultural Library in Beltsville, MD. Dr. Charles Hess, Assistant Secretary for Science and Education will be the featured speaker during these ceremonies. The inductees are John Skinner, Robert Hogue, Donald McQueen Shaver, Richard Forsythe, and Leslie Watt. If you would like to attend, contact Larry Dawson, 1644 Cahill Drive, East Lansing, MI 48823; (517) 332-2658.

PER Database

Poultry Extension Resources Database Guides should be available for each person interested in poultry. If you do not have a copy contact me or Forest Muir (PA). While we are on this subject, Forest deserves a lot of credit and appreciation as the driving force behind this effort. We also thank all the other specialists for the work they have contributed toward this program.

Enclosures

- 1) PSA Annual Meeting, List of Extension Related Events
This summary is enclosed to all Extension personnel, but all other PSA members are welcome and encouraged to attend any Extension meeting.
- 2) USDA Warning Against the Purchase of Smuggled Birds
This is the busy season for smuggling pet birds into the country, so be on the lookout for problems. You can order a pamphlet, Importing a Pet Bird, by contacting USDA-APHIS-LPA-PI, Room 613, 6505 Belcrest Road, Hyattsville, MD 20782; (301) 436-7255. The USDA Smuggled Bird Hotline is (301) 436-8073.
- 3) Material that support the Extension Service's legislative agenda with ECOP
Six issue papers are being sent to project leaders, who will share them with personnel in their department as well as other interested parties. Your comments are encouraged.
- 4) Biotechnology at USDA
Several fact sheets are enclosed which describe the efforts of several agencies at USDA in the area of biotechnology. The Office of Agricultural Biotechnology (OAB) was established in 1986 under the Assistant Secretary for Science and Education, but was transferred to the Deputy Secretary's Office in 1987. For additional information, contact the OAB office at USDA, Room 321-A Administration Building, Washington, DC 20250; (202) 447-9165.

Job Opportunities

- 1) Summer Interns
A list of names, addresses, and advisors of both undergraduate and graduate students from the Western States is available through the PePa office, for companies wishing to provide summer employment to poultry students. You may obtain the list by calling the PePa office (209) 524-9666. Source: PePa Newsletter Vol. 14, No. 9, May 5, 1989.

Job Opportunities
(Continued)

Other organizations or universities have coordinated similar activities, which should be helpful in the recruitment and retention of high quality students for the poultry system.

- 2) Extension Veterinarian -- Avian
Refer to position announcement 5130 when requesting information on this position, which is located in Oakwood, GA. The deadline is June 7, 1989 for all material related to the application for this position. For more information, contact David French, Acting Head, Extension Veterinary Department, University of Georgia, Athens, GA 30602; (404) 542-2875.
- 3) Graduate Assistantships
John Wolford at Virginia Polytechnic Institute and State University has announced the opening of several assistantship positions. The appointments are in the areas of management, nutrition, physiology, nutrition, and genetics. For more information, contact John, or other faculty members, at: Department of Poultry Science, VPI, Blacksburg, VA 24061; (703) 231-9177.
- 4) Graduate Assistantships
Paul Patterson at the University of Hawaii has announced they are looking for students interested in a graduate program in monogastric nutrition, with at least one position being available for poultry. For more information, contact Ernie Ross, Department of Animal Sciences, 1800 East-West Road, Honolulu, HI 96822; (808) 948-8334.

Recipe Contest

The American Egg Board has announced the Official Rules of their 1989 contest, The Pursuit of Eggsellence. The deadline for entries is August 1, 1989. For a copy of the rules and awards, contact the American Egg Board, 1460 Renaissance Drive, Park Ridge, IL 60068; (312) 296-7044.

Appropriate Technology
Transfer for Rural
America (ATTRA)

The Cooperative Extension System questions for August 1987 through November 1988 were: 383 total questions; 223 total people; 96 on the ATTRA program; 105 on crops; 70 on livestock; 14 on marketing; 25 on pest (pests, pesticides, etc.); 32 on low input sustainable agriculture; and 30 on CRD. No information was provided on the cost per question.



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Enclosures

